

### **Amendments To The Claims:**

This listing of claims will replace all prior claim lists in this application.

### **Listing of Claims:**

1. (Currently amended) An aqueous anisotropic copper etching agent for ~~anisotropically-etching-etching-copper~~, the etching agent comprising potassium hydrogen peroxomonosulfate having a concentration within a range of about 0.08 to about 2.0 mol/l, and acetic acid, said etching agent etching the copper at an approximately uniform rate throughout the etching process, and wherein the acetic acid functions as a wetting agent, and wherein the acetic acid is within a range of 10 wt.% to 75 wt.% relative to the potassium hydrogen peroxomonosulfate.

2.-3. (Cancelled)

4. (Withdrawn) An etching agent for a laminated film of a titanium film and a copper film comprising an aqueous solution containing potassium hydrogen peroxomonosulfate and hydrofluoric acid.

5. (Withdrawn) An etching agent for a laminated film of a molybdenum film and a copper film comprising an aqueous solution containing potassium hydrogen peroxomonosulfate, phosphoric acid and nitric acid.

6. (Withdrawn) An etching agent for a laminated film of a chromium film and a copper film comprising an aqueous solution containing potassium hydrogen peroxomonosulfate and hydrochloric acid.

7. (Withdrawn) An etching agent for a laminated film of a titanium film and a copper film comprising an aqueous solution containing a peroxomonosulfate salt, hydrofluoric acid, and hydrochloric acid or a chloride.

8. (Withdrawn) An etching agent for a laminated film of a titanium film and a copper film comprising an aqueous solution containing a peroxosulfate salt and a fluoride.

9. (Withdrawn) An etching agent for a laminated film of a titanium film and a copper film according to Claim 7, wherein said peroxosulfate salt comprises any one or more compounds selected from  $\text{KHSO}_5$ ,  $\text{NaHSO}_5$ ,  $\text{K}_2\text{S}_2\text{O}_8$ ,  $\text{Na}_2\text{S}_2\text{O}_8$  and  $(\text{NH}_4)_2\text{S}_2\text{O}_8$ .

10. (Withdrawn) An etching agent for a laminated film of a titanium film and a copper film according to Claim 7, wherein said chloride comprises an alkali metal chloride or ammonium chloride.

11. (Withdrawn) An etching agent for a laminated film of a titanium film and a copper film according to Claim 8, wherein said peroxosulfate salt comprises any one or more compounds selected from  $\text{KHSO}_5$ ,  $\text{NaHSO}_5$ ,  $\text{K}_2\text{S}_2\text{O}_8$ ,  $\text{Na}_2\text{S}_2\text{O}_8$  and  $(\text{NH}_4)_2\text{S}_2\text{O}_8$ .

12. (Withdrawn) An etching agent for a laminated film of a titanium film and a copper film according to Claim 8, wherein said fluoride comprises an alkali metal fluoride or ammonium fluoride.

13.-16. (Cancelled)

17. (Previously presented) An etching agent according to claim 1, wherein said etching agent selectively etches copper.

18. (Currently amended) An anisotropic copper etching agent for anisotropically etching a copper layer having an overlying mask pattern in an etching process the etching agent comprising an aqueous solution containing potassium hydrogen peroxomonosulfate having a concentration within a range of about 0.08 to about 2.0 mol/l, said etching agent etching the copper layer at an approximately uniform rate throughout the etching process, such that edges of the copper layer are substantially continuous with corresponding edges of the mask pattern, and wherein the

acetic acid is within a range of 10 wt.% to 75 wt.% relative to the potassium hydrogen peroxomonosulfate.

19. (Previously presented) An etching agent according to claim 18, wherein said etching agent is capable of selectively etching the copper.

20. (Currently amended) An aqueous anisotropic copper etching solution, wherein the etching solution is formulated to for anisotropically etching-etch a copper layer having a mask pattern thereon, the solution comprising potassium hydrogen peroxomonosulfate and acetic acid, wherein the acetic acid continuously wets exposed surfaces of the copper layer and the potassium hydrogen peroxomonosulfate uniformly etches the copper layer, such that the copper layer is etched to substantially the same dimensions as the mask pattern, and wherein the acetic acid is within a range of 10 wt.% to 75 wt.% relative to the potassium hydrogen peroxomonosulfate.

21. (Currently amended) The aqueous anisotropic copper etching solution of claim 20, wherein the solution comprises a potassium hydrogen peroxomonosulfate concentration of about 0.08 to about 2.0 mol/l.

22. (Currently amended) The aqueous anisotropic copper etching solution of claim 21, wherein the solution comprises a weight ratio of acetic acid to potassium hydrogen peroxomonosulfate of about 10% to about 75%.

23. (Currently amended) The aqueous anisotropic copper etching solution of claim 20, wherein the copper layer has a thickness of about 100nm to about 200nm.

24. (Currently amended) The aqueous anisotropic copper etching solution of claim 20, wherein the solution etches the copper layer such that edges of the copper layer are substantially continuous with corresponding edges of the mask pattern.

25. (Currently amended) The aqueous anisotropic copper etching solution of claim 20, wherein the copper layer is layer comprises a gate electrode.

26. (Currently amended) The aqueous anisotropic copper etching solution of claim 20, wherein the copper layer is layer comprises a wiring layer.